AMENDMENTS TO THE SPECIFICATION:

Please amend the specification to read as follows:

Paragraph starting at page 10, line 27:

At the conclusion of a voter's voting session, voting machine VM stores the voting record of a voting session and the voting session identifier associated therewith by its processor in its internal memory or memories and provides same to local printer LP which provides a tangible record PR, e.g., in the form of a ~~printer\d~~ printed receipt PR, to the voter. Note that system 10' still provides at least two independent and separate identical voting records for each voting session and that these are associated with a voting session identifier by which vote tabulation may be verified independently and on a vote-by-vote basis. In particular, any voter may utilize the voting session identifier on his printed receipt PR to check the published vote results 16 to verify that his vote has been correctly recorded, thereby providing transparency of voting results 16.

Paragraph starting at page 25, line20:

If utilized and ~~alternatively,~~ alternatively, a chip card (i.e. smart card) is issued 112 to the voter with a unique identifying serial or registration number and, optionally, personal identification data (e.g., similar data to that of driver license) for ease of verification by the voting attendant or election official. The voter takes the smart card to the polling place, verifies registration 114 and then inserts the chip card into the smart card reader/writer of the voting machine to activate 132 the voting machine to initiate and engage in a voting session. Alternatively, the voter may insert the chip card into the smart card reader/writer of the voting machine to verify 114 registration to vote and activate 132 the voting machine to initiate a voting session

AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) ~~Voting apparatus~~ A self-contained voting machine comprising:

a processor for processing voting information and providing a unique voting session identifier for each of a plurality of voting sessions;

a display coupled for receiving voting information from said processor;

a voter interface for receiving voting selections made by a voter and coupling same to said processor, said processor providing a voting record including the voting selections for each voting session;

a memory coupled to said processor for storing the voting record and the unique voting session identifier for each voting session; and

means coupled to said processor for storing the voting record and the unique voting session identifier for each voting session in a tangible medium separate from said memory,

wherein the tangible medium for each voting session is issued by said means for storing after the voting record and unique voting session identifier for the voting session is stored therein and before a next voting session.

2. (Previously Presented) The voting apparatus of claim 1 wherein said display includes one of a cathode ray tube, a computer display, an LCD display, a display screen, a touch screen display, a Braille device, an aural device, and illuminated buttons.

3. (Original) The voting apparatus of claim 1 wherein said voter interface includes one of a keyboard, a touch screen, a button, a switch, voice recognition apparatus, a Braille keyboard, a pen with writing recognition interface.

4. (Original) The voting apparatus of claim 1 wherein said processor couples said display to said voter interface for displaying the voter selections from said voter interface on said display.

5. (Original) The voting apparatus of claim 1 wherein said means for storing the voting record and the voting session identifier in a medium separate from said non-volatile memory includes at least one of a smart card encoder and a printer.

6. (Original) The voting apparatus of claim 5 wherein said smart card encoder provides information read from the smart card to said processor.

7. (Original) The voting apparatus of claim 6 wherein the information read from the smart card includes at least one of a voter identifying number, election information, voting place information and wherein said processor associates the voter identifying number with a voter.

8. (Original) The voting apparatus of claim 7 wherein said processor verifies a voter's eligibility to vote.

9. (Original) The voting apparatus of claim 5 wherein said smart card encoder is adapted for at least storing information in at least one of a contact-type smart card and a wireless-type smart card.

10. (Original) The voting apparatus of claim 5 wherein said printer includes one of a thermal printer, a dot matrix printer, an ink-jet printer, a bubble jet printer, and a laser printer.

11. (Original) The voting apparatus of claim 5 further comprising a collection container for receiving a smart card.

12. (Original) The voting apparatus of claim 11 wherein said collection container is operatively coupled to said smart card encoder for receiving the smart card after the voting record is stored therein.

13. (Original) The voting apparatus of claim 1 wherein said memory is a non-volatile memory.

14. (Original) The voting apparatus of claim 13 wherein said non-volatile memory includes at least one of a floppy disk, a computer hard disk, a writeable optical disk, a memory module, a flash memory, a magnetic tape, an optical tape, a semiconductor memory, a random-access memory and a programmable read-only memory.

15. (Original) The voting apparatus of claim 1 wherein said processor includes means for generating the voting session identifier.

16. (Original) The voting apparatus of claim 15 wherein said means for generating includes at least one of a random number generator, a pseudo-random-number generator, a random character generator, a pseudo-random-character generator, and a look-up table.

17. (Original) The voting apparatus of claim 1 wherein the voting session identifier is unrelated to a particular voter's personal identity.

18. (Original) The voting apparatus of claim 1 further comprising a communication interface coupled to said processor for communicating the voting record to an external device.

19. (Original) The voting apparatus of claim 18 wherein said external device includes a computer for tabulating the voting record.

20. (Original) The voting apparatus of claim 1 wherein said voter interface includes means for confirming the voting selections, and wherein said means for confirming is coupled for storing the voting record in the smart card and in said memory responsive to confirmation of the voting selections.

21. (Original) The voting apparatus of claim 1 in combination with a smart card including a memory for storing at least one of the voting session identifier and the voting record.

22. (Original) In combination with an electronic voting machine comprising a processor, a display, a voter interface and at least one memory for storing a voting record of each one of a number of voting sessions,

a generator of a voting session identifier for each voting session, which voting session identifier is unrelated to the personal identity of a particular voter conducting that voting session, and

a printer providing a tangible receipt containing at least the voting record and the voting session identifier for each voting session.

23. (Original) The combination of claim 22 further comprising a smart card encoder for storing at least the voting record and the voting session identifier for each voting session in the memory of a smart card.

24. (Currently Amended) A voting system comprising:

a computer for tabulating voting records;

at least one voting machine; said voting machine comprising:

a processor for processing voting information and providing a unique voting session identifier for each of a plurality of voting sessions,

a display coupled for receiving voting information from said processor,

a voter interface for receiving voting selections made by a voter and coupling same to said processor, said processor providing the voting selections in a voting record for each voting session,

a memory coupled to said processor for storing the voting record and the unique voting session identifier for each voting session; and

means coupled to said processor for storing the voting record and the unique voting session identifier for each voting session in a tangible medium separate from

said memory;

wherein the tangible medium for each voting session is issued by said means for storing after the voting record and unique voting session identifier for the voting session is stored therein and before a next voting session; and

means for communicating the voting record from said at least one voting machine to said computer for tabulating the voting record.

25. (Original) The voting system of claim 24 wherein the voting session identifier is unrelated to a particular voter's personal identity.

26. (Original) The voting system of claim 24 wherein said means for storing the voting record and the voting session identifier in a tangible medium includes at least one of (a) a smart card encoder coupled to said processor for storing the voting record and voting session identifier in a smart card, and (b) means coupled to said processor for providing a tangible human-readable record including the voting record and the voting session identifier.

27. (Original) The voting system of claim 26 wherein said smart card encoder provides information read from the smart card to the processor of the voting machine.

28. (Original) The voting system of claim 27 wherein the information read from the smart card includes a voter identifying number, and wherein said processor associates the voter identifying number with the voter.

29. (Original) The voting system of claim 27 wherein said means for communicating communicates the information read from the smart card to said computer, and wherein said computer communicates verification of voter registration to said processor.

30. (Original) The voting system of claim 29 wherein said processor is responsive to the registration verification to enable said voter interface to receive voting selections.

31. (Original) The voting system of claim 26 further comprising a smart card reader separate from said voting machine for reading the voting record stored in the smart card, whereby an independent tally of the voting record may be provided.

32. (Original) The voting system of claim 31 further comprising means for tabulating and publishing the voting record read by said separate smart card reader.

33. (Original) The voting system of claim 32 wherein said means for publishing includes making at least one of the voting record and voting session identifier available through the Internet.

34. (Original) The voting system of claim 24 further comprising means for publishing the voting records tabulated by said computer.

35. (Original) The voting system of claim 34 wherein said means for publishing includes making at least one of the voting record and voting session identifier available through the Internet.

36. (Original) The voting system of claim 24 wherein said means for communicating includes at least one of an electrical cable, a local area network, a communication hub, a public telephone system, a radio communication, and an Internet connection.

37. (Original) The voting system of claim 24 wherein said means for communicating is operative during at least one of (a) limited times during a period for voting, (b) all times in the period for voting, and (c) a time after the period for voting.

38. (Original) The voting system of claim 26 further comprising a collection container operatively coupled to said smart card encoder for receiving the smart card after the voting record is stored therein.

39. (Original) The voting system of claim 24 wherein said voter interface includes means for confirming the voting selections.

40. (Original) The voting system of claim 39 wherein said means for confirming is coupled to the processor for storing the voting record in said memory and in said tangible medium separate from said memory responsive to confirmation of the voting selections.

41. (Original) The voting system of claim 39 wherein said means for confirming is coupled for causing said means for storing the voting record in a tangible medium to provide the tangible medium having at least the voting record thereon responsive to confirmation of the voting selections.

42. (Original) The voting system of claim 24 in combination with a smart card including a memory for storing at least the voting session identifier and the voting record.

43. (Original) The voting system of claim 24 wherein the voting session identifier includes a first portion that is unrelated to a particular voter's personal identity and a second portion containing information relating to at least one of a date of an election, a time of the voting session, an identity of the election district, and an identity of a polling place.

44. (Currently Amended) A method for voting comprising:

initiating a voting session;

providing ~~an~~ a unique identifier for the voting session;

creating a voting record including the unique voting session identifier and voting selections made during the voting session;

storing the voting record including the unique voting session identifier and the voting selections in a memory; ~~and~~

storing the voting record including the unique voting session identifier and the voting selections in a tangible medium separate from the memory; and

issuing the tangible medium after the voting record including the unique voting session identifier and the voting selections is stored therein and before a next voting session.

45. (Original) The method of claim 44 further comprising providing an identifying number to a voter, and utilizing the identifying number for causing said initiating a voting session.

46. (Original) The method of claim 45 wherein providing an identifying number to a voter includes providing a smart card having the identifying number stored therein.

47. (Original) The method of claim 46 wherein said utilizing the identifying number includes reading the identifying number stored in the smart card, and applying the identifying number so read to initiate the voting session.

48. (Original) The method of claim 45 wherein utilizing the identifying number includes reading the identifying number stored in the smart card, and applying the identifying number so read for verifying eligibility to vote.

49. (Original) The method of claim 48 wherein verifying eligibility to vote includes at least one of verifying that the voter is registered to vote and verifying that the identifying number has not previously been used to vote.

50. (Original) The method of claim 44 wherein said storing the voting record in a tangible medium includes storing the voting record in a smart card.

51. (Original) The method of claim 44 wherein said storing the voting record in a tangible medium includes providing a printed receipt containing the voting record including the voting session identifier and the voting selections.

52. (Original) The method of claim 44 further comprising tabulating the voting record including the voting session identifier and the voting selections from the memory.

53. (Original) The method of claim 52 further comprising publishing the voting record including the voting session identifier and the voting selections tabulated from the memory.

54. (Original) The method of claim 44 further comprising tabulating the voting record including the voting session identifier and the voting selections from the tangible medium.

55. (Original) The method of claim 54 further comprising publishing the voting record including the voting session identifier and the voting selections tabulated from the tangible medium.

56. (Original) The method of claim 44 wherein said storing the voting record in a tangible medium separate from the memory includes storing the voting record in a smart card and providing a printed receipt containing the voting record.

57. (Original) The method of claim 56 further comprising comparing the voting records from any two or more of the memory, the smart card and the printed receipt.

58. (Original) The method of claim 44 further comprising confirming the voting selections.

59. (Original) The method of claim 58 wherein said confirming the voting selections causes at least one of said storing the voting record in a memory and said storing the voting record in a tangible medium separate from the memory.

60. (Original) In an electronic voting system comprising a voting machine for providing a number of voting sessions for a number of voters:

for each of the number of voters, a chip card providing a registration record and a storage medium for recording the voter's voting selections, wherein said chip card has substantial memory for recording all of the voting selections of one voter;

a chip-card reader/writer for coupling the registration information to the voting machine and for recording each voter's voting selections in the storage medium of that voter's chip card after that voter's voting session is completed.

61. (Original) The electronic voting system of claim 60 wherein the registration record stored in said chip card includes at least one of a voter-unique serial number representative of voter identity and a processing code representative of election information that cannot be readily changed after said chip card is issued.

62. (Original) The electronic voting system of claim 60 wherein the storage medium of said chip card has a capacity of more than 2 Kilobytes.

63. (Original) The electronic voting system of claim 60 wherein the storage medium of said chip card has a capacity of more than 8 Kilobytes.

64. (Original) The electronic voting system of claim 60 wherein the storage medium of said chip card has a capacity of more than 32 Kilobytes.

65. (Original) The electronic voting system of claim 60 wherein the registration record of said chip card includes a representation of at least one of a voting district, an election, a voter-unique serial number, and voter identification information.

66. (Original) The electronic voting system of claim 60 wherein said chip card is collected at the end of the voting session after all of the voter's voting selections are encoded into the storage medium thereof.

67. (Original) The electronic voting system of claim 66 wherein said collected chip card is read for producing the record of the voter's voting selections stored therein for at least one of counting the vote and publishing the vote.

68. (Original) The electronic voting system of claim 60 wherein the registration record of said chip card includes a voter-unique serial number for that voter, and wherein a tangible receipt is provided including that voter's voter-unique serial number and that voter's voting selections.

69. (Original) The electronic voting system of claim 60 wherein voting records for each of the voters are published or are posted on the Internet, wherein each voting record includes the voting selections of a particular voter and that voter's voter-unique serial number, whereby the voting is transparent.

70. (Original) The electronic voting system of claim 69 wherein the voter-unique serial number does not reveal the identity of the voter, whereby the voting is transparent and voter privacy is provided.

71. (Original) The electronic voting system of claim 60 wherein the voting machine includes one of a keypad and a touch screen for the voter making voting selections.

72. (Original) The electronic voting system of claim 60 including a plurality of voting machines as set forth in claim 60 connected to a computer via one of a local area network and a communication hub.

73. (Original) The electronic voting system of claim 72 wherein the voting machines are not connected to the computer via the Internet during the voting sessions.

74. (Currently Amended) A storage medium encoded with machine-readable computer instructions for conducting a voting session comprising:

means for causing a computer to initiate the voting session;

means for causing the computer to provide an identifier for the voting session;

means for causing the computer to create a voting record including the voting session identifier and voting selections made during the voting session;

means for causing the computer to store the voting record including the voting session identifier and the voting selections in a memory; and

means for causing the computer to store the voting record including the voting session identifier and the voting selections in a tangible medium separate from the memory and to cause the tangible medium to issue after the voting record including the unique voting session identifier and the voting selections is stored therein and before a next voting session.

75. (Original) The storage medium of claim 74 wherein said means for causing the computer to store the voting record in a tangible medium includes causing the computer to provide a printed receipt containing the voting record including the voting session identifier and the voting selections.

76. (Original) The storage medium of claim 74 wherein said means for causing the computer to store the voting record in a tangible medium includes causing the computer to store the voting record including the voting session identifier and the

voting selections in the memory of a smart card.

77. (Original) The storage medium of claim 74 wherein said means for causing the computer to store the voting record in a memory includes causing the computer to store the voting record including the voting session identifier and the voting selections in at least two independent non-volatile memories.

78. (Original) The storage medium of claim 74 wherein said means for causing the computer to store the voting record in a memory and said means for causing the computer to store the voting record in a tangible medium are responsive to confirmation of the voting selections by a voter.

79. (Previously Presented) In an electronic voting machine comprising a processor, a voter interface, and at least one memory for storing a voting record of each one of a number of voting sessions:

wherein said voter interface is usable by a person having a handicap, said voter interface including one or more of a an aural device, a headphone, a keyboard, a pen with writing recognition interface, voice recognition apparatus, a Braille keyboard and/or a Braille output device.

80. (Previously Presented) In an electronic voting system comprising a voting machine for providing a number of voting sessions for a number of voters:

for each of the number of voters, a smart card including a storage medium for recording the voter's voting selections, wherein said smart card storage medium is sufficient for recording all of the voting selections of one voting session;

a smart-card writer recording each voter's voting selections in the storage medium of that voter's smart card after that voter's voting session is completed; and

a collection container for receiving said smart card.

81. (Previously Presented) The voting system of claim 80 wherein said collection container is operatively coupled to said smart card writer for receiving the smart card after the voting record is stored therein.

82. (Canceled)

83. (Previously Presented) In an electronic voting machine comprising a processor, a voter interface and at least one memory for storing a voting record of each one of a number of voting sessions:

a generator of a voting session identifier for each voting session, wherein at least part of the voting session identifier is random and is unique for each voting session.

84. (Previously Presented) The electronic voting machine of claim 83 further comprising :

a smart card encoder for storing at least the voting record and the voting session identifier for each voting session in the memory of a smart card; and/or

a printer providing a tangible receipt containing at least the voting session identifier and a representation of the voting record for each voting session.

85. (Previously Presented) The electronic voting machine of claim 83 wherein the voting session identifier is unrelated to the personal identity of a particular voter conducting that voting session and is unique for each voting session.

86. (Previously Presented) The electronic voting machine of claim 83 wherein the voting session identifier includes identification of one or more of a state, a county, a precinct, a political subdivision, a voting district, a polling place, a voting machine, and/or date and time.

87. (Currently Amended) Voting apparatus comprising:

a processor for processing voting information and providing a unique randomized voting session identifier for each of plural voting sessions;

a display coupled for receiving voting information from said processor;

a voter interface for receiving voting selections made by a voter and coupling same to said processor, said processor providing a voting record including the voting selections for each voting session; and

at least two separate and independent memory devices coupled to said processor for each storing the voting record and the unique randomized voting session identifier for each voting session, wherein one of said memory devices is decoupled from said processor after the voting record and the unique randomized voting session identifier for one voting session is stored therein and before a next voting session.

88. (Previously Presented) The voting apparatus of claim 87 wherein the voting session identifier is unrelated to the personal identity of a particular voter.

89. (Previously Presented) In combination with an electronic voting machine comprising a processor, a display, a voter interface and at least one memory for storing a voting record of each one of a number of voting sessions,

a generator of a voting session identifier for each voting session, which voting session identifier is unrelated to the personal identity of a particular voter conducting that voting session, and

a printer providing a printed paper containing at least the voting record and the voting session identifier for each voting session, wherein the printed paper is human readable and/or optically readable.

90. (Previously Presented) A method for voting comprising:

initiating a voting session;

providing an identifier for the voting session;

creating a voting record including the voting session identifier and voting selections made during the voting session;

storing the voting record including the voting session identifier and the voting selections in a memory; and

storing the voting record including the voting session identifier and the voting selections on a printed paper, wherein the printed paper is human readable and/or optically readable.

91. (Previously Presented) The combination of claim 22 wherein the tangible receipt includes a printed paper containing at least the voting record and the voting session identifier for each voting session, wherein the printed paper is human readable and/or optically readable.

92. (Previously Presented) The method of claim 44 wherein said storing the voting record in a tangible medium separate from the memory includes storing at least the voting record and the voting session identifier for each voting session on a printed paper, wherein the printed paper is human readable and/or optically readable.

93. (Previously Presented) The combination of claim 22 further comprising:

means for displaying on the display during each voting session voting information for all offices, referenda, and/or questions all at one time; or

means for displaying on the display during each voting session voting information for all offices, referenda, and/or questions sequentially one office, referendum or question at a time.

94. (Previously Presented) The combination of claim 93 wherein a voting selection made during a voting session remains displayed and/or is highlighted during that voting session.

95. (Previously Presented) The method of claim 44 further comprising:

displaying during each voting session voting information for all offices, referenda, and/or questions all at one time; or

displaying during each voting session voting information for all offices, referenda, and/or questions sequentially one office, referendum or question at a time.

96. (Previously Presented) The method of claim 95 wherein a voting selection made during a voting session remains displayed and/or is highlighted during that voting session.

97. (Previously Presented) The method of claim 44 further comprising, prior to initiating a next voting session subsequent to a given voting session:

voiding the voting record for the given voting session stored in the memory;

reinitiating the given voting session;

creating a voting record including the voting session identifier and voting selections made during the reinitiated given voting session; and

storing the voting record including the voting session identifier and voting selections made during the reinitiated given voting session in the memory.

98. (Previously Presented) The method of claim 97 further comprising authorizing said voiding the voting record for the given voting session stored in the memory and said reinitiating the given voting session responsive to an election official smart card.

99. (Previously Presented) The method of claim 98 further comprising separately storing the voided voting record for the given voting session and/or an identification of the election official smart card.

100. (Previously Presented) The storage medium of claim 74 wherein the machine readable computer instructions are transmitted to the computer over a transmission

medium including electrical conductors, fiber optics, light conductors and/or electromagnetic radiation.

101. (Currently Amended) Voting apparatus comprising:

means for initiating a voting session;

means for providing an identifier for the voting session;

means for creating a voting record including the voting session identifier and voting selections made during the voting session;

means for storing the voting record including the voting session identifier and the voting selections in a memory; and

means for storing the voting record including the voting session identifier and the voting selections in a portable tangible medium separate from the memory;

wherein said means for providing and said means for creating are embodied in a set of machine readable instructions for a computer, and wherein both of said means for storing are responsive to the set of machine readable instructions for a computer.

102. (Previously Presented) The voting apparatus of claim 100 wherein the set of machine readable computer instructions are transmitted to the computer over a transmission medium including electrical conductors, fiber optics, light conductors and/or electromagnetic radiation.

REMARKS

Claims 1-81 and 83-102 are pending in the captioned Application in which claims 1-102 are rejected and claim 82 is canceled.

The specification is amended at page 10 to correct the spelling of "printed" and at page 25 to remove a superfluous comma.

Claims 1, 24, 44, 74, 87 and 101 are amended hereby. Support for the amendment to the claims is found, for example, in the specification at page 9, lines 13-25, page 10, lines 6-16, page 10, line 27 to page 11, line 5, page 15, lines 15-22, page 17, lines 3-22, page 22, lines 1-15, and page 35, line 15 to page 36, line 1, as well as in Figures 1A, 1B, 2, 3, 4 and 5 . It is noted that the tangible medium (e.g., be it a smart card, a printed receipt, or other tangible medium) is provided or issued at the end of one voting session and before the next voting session, and that the tangible medium when issued has voting information (e.g., a voting record, unique identifier, voting session identifier, and/or other voting information) relating to that voting session stored therein, as described in the present Application. The tangible medium is issued irrespective of whether the tangible medium is to be taken by the voter or a voting official, or whether the tangible medium is to be collected, either manually or automatically. When issued, the tangible medium is removed or decoupled from the means that stores information therein, and so each tangible medium provides an independent and auditable record of one voting session.

Rejection Under 35 U.S.C. §102(e) and/or §103(a):

Claims 1-10, 13-19, 22, 24-37, 39-41, 43-49, 51-55, 57-59, 74-75, 77-79, 82-83 and 85-102 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. 6,081,793 to Challener et al, or alternatively under 35 U.S.C. §103(a) as being unpatentable over Challener et al in view of the 1990 Federal Election Commission "Performance and Test Standards For Punch Card, Marksense and Direct Recording Electronic Voting Systems" (hereinafter the "FEC Standard"). The rejection is traversed in part and overcome in part by amendment to certain claims, and is moot as to canceled claim 82.

Challener et al relates to a system and method for secure computer moderated voting

wherein cryptographic routines are utilized in a distributed data processing system to maximize privacy of voter identity and completed ballots. (Abstract). Challener does not describe or suggest a voting apparatus or machine that may be utilized at a polling place without connection to a server or other part of a distributed data processing system, as is recited incertain of Applicant's claims.

To the extent smart cards are utilized in the Challener system, they are registration cards issued when the voter registers to vote, and are thereafter utilized for identifying registered voters for issuing the correct ballot to the voter when the voter appears to vote. (Column 2, line 61 to column 3, line 28).

Only information relating to voter identification and precinct is stored in the smart card, as is clearly illustrated in Figure 2A of Challener wherein all of the information described as stored in smart card N has to do with the voter's identity, public and private encryption keys, the voting precinct address and ballot ID for that precinct to which the voter is assigned, and a PIN for the smart card. (Column 3, lines 10-28).

No voting selections or other information relating to the voting record or to the voting session are stored in the smart card of Challener, and Challener provides no motivation and/or suggestion for doing so, either in a smart card or other tangible medium. In fact, Challener provides no motivation and/or suggestion for storing any information in a smart card at the voting precinct or polling place. Because Challener is directed to communicating information, e.g., between a polling place and a central processing facility/servers utilizing cryptographic routines for maximizing privacy (e.g., Abstract; Figure 1), it is not concerned about creating an independent record at the voting machine, e.g., at the polling place.

The Examiner refers to a tangible medium as a "portable non-volatile electronic memory or a portable printed memory." As used in the present Application and claims, a tangible medium includes a "portable non-volatile electronic memory [e.g., a smart card] or a portable printed memory" [e.g., a printed receipt] as well as other tangible medium that become independent of the means that stores information for one voting session therein. As Examiner appears to concede, Challener does not describe or suggest such tangible medium and the utilization thereof as claimed.

Examiner asserts that Challener Figure 7 and item #389 relate to a voting session

identifier, however, Challener describes these as "a ballot ID for the ballot that is going to be issued to the voter" (column 8, lines 3-4) which appears to identify the form of the ballot (e.g., the voting precinct to which it pertains). The Figure 4 entry"ballot ID of precinct" confirms that the ballot ID represents a precinct ballot format. Use of ballot ID to associate a form of ballot appears consistent with Figure 1 wherein are shown a plurality of certified ballots 235 illustrated as ballot 1, ballot 2 through ballot N, that are issued to voters (column 3, lines 46-50). It appears that the term "ballot ID" is used in Challener only at column 7, line 34 and column 8, lines 3,5, 9 & 14, and it is submitted that all uses thereof are consistent with the ballot ID of the precinct, and not a voting session as recited by Applicant.

One advantage of this aspect of Applicant's invention is that the voting information stored in the tangible medium cannot be changed by the voting apparatus, either through an intentional or an accidental action, after a voting session ends, and so is completely independent of the voting machine and available to provide independent authentication of the vote. A further advantage is that, where a voting session identifier is utilized, the voting record stored in the tangible medium may be compared against the voting record stored in the voting apparatus and/or voting system for verification of each vote cast. Further, where the voting session identifier is unrelated to the voter's identity (e.g., is random or randomized), such independent verification of the vote can be performed while preserving the privacy and anonymity of each voter.

Accordingly, Challener lacks a voting session identifier and a tangible medium, and so cannot anticipate Applicant's claims, as the Examiner recognizes, and further Challener does not render Applicant's claims obvious.

The FEC Standard relates to proposed specifications for various kinds of voting apparatus (including electronic (DRE) voting machines) and lacks the elements missing from Challener. Examiner "takes the position that Fed teaches the use of a tangible medium to provide voter confirmation of the vote" without citing to any particular disclosure therein, because there is no such disclosure therein. The FEC Standard only provides performance requirements and does not provide any disclosure, no less an enabling disclosure, of how any such requirements may be met or provided. The printed outputs specified are a printed record of election and ballot form data at the beginning of voting (§2.2.1.6), a consolidated report of

polling place and absentee data (§2.2.3.4.), a printed summary report of the votes cast (§§2.2.3.2. & 3.2.7.3.), and a machine-readable printed ballot for voter confirmation (§E.5).

Voting results under the FEC Standard are to be stored in the voting machine in multiple memories in the machine itself (§§2.3.2., 3.2.4.2.5. & 4.5) and as electronic ballot images (§§2.2.2.8., 2.3.2., 3.2.4.2.5. & 4.5). There is no description or suggestion in the FEC Standard of providing an independent record on a tangible medium that is separated from and/or issued by the voting machine at the conclusion of each voting session, as claimed by Applicant in the present Application.

Examiner combines Challener and the FEC Standard to assert that it would have been obvious to "provide a printout of the voter ballot and information as taught by Challener...." The obviousness assertion must fail because the premise of what Challener teaches is refuted above. Further, the prior art evidences a long felt need for confirmation of the accuracy of the vote as recorded by DRE (as well as other) voting machines.

The 1993 paper by Peter G. Neumann titled "Security Criteria for Electronic Voting" (cited, of record), which was published well after the FEC Standard, states in the paragraph bridging from page 5 to 6 that:

> "The requirement for voter confidentiality and the requirement for nonsubvertible and sufficiently complete end-to-end monitoring are conceptually contradictory. It is essentially impossible to achieve both at the same time without resorting to complicated mechanisms, which themselves may introduce new potential vulnerabilities and opportunities for more sophisticated subversions." (underline added).

Further evidence of this long felt and unsatisfied need is found in Dr. Rebecca Mercuri's 2001 article titled "Rebecca Mercuri's Statement on Electronic Voting" (which was published after the present Application was filed):

> "Fully electronic systems do not provide any way that the voter can truly verify that the ballot cast corresponds to that being recorded, transmitted, or tabulated.... Electronic ballot systems without individual print-outs for examination by the voters, do not provide an independent audit trail...."

Further evidence of this long felt and unsatisfied need is found in Dr. Rebecca Mercuri's 2003 article titled "A Better Ballot Box" (which was published after the present Application was filed), wherein Dr. Mercuri states:

> "These problems result from an underlying fundamental conflict in the construction of

> electronic voting (e-voting) systems: the simultaneous need for privacy and auditability, which is the ability, when necessary, to recount the votes cast.... In other words, the privacy constraint directly conflicts with the ability to audit the ballot data." (page 46, right column)

and

> "The Mercuri Method allows voters to check that their votes will be recorded accurately by requiring that electronic voting machines be modified to generate paper ballots. Such a system does not exist, but could be created by machine manufacturers." (page 47, Figure caption; underline added)

Copies of the foregoing two articles, which were published after the present Application was filed, are enclosed for the Examiner's convenience.

How can the Examiner be correct that the FEC Standard describes or suggests Applicant's invention when recognized authors many years thereafter are still writing articles seeking a solution? The answer is simple – it is just not obvious based upon the FEC Standard and/or Challener.

It is submitted that Applicant's apparatus and system as described and claimed in the present Application is the first to provide the possibility for privacy and anonymity and a tangible audit trail that could overcome the objections of recognized authorities in the field.

On the other hand, Applicants' amended claim 1 is patentable at least because it recites:

> "means coupled to said processor for storing the voting record and the unique voting session identifier for each voting session in a tangible medium separate from said memory,
>
> "wherein the tangible medium for each voting session is issued by said means for storing after the voting record and unique voting session identifier for the voting session is stored therein and before a next voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether taken individually or properly combined.

Further, Applicants' claim 22 is patentable at least because it recites:

> "a generator of a voting session identifier for each voting session, which voting session identifier is unrelated to the personal identity of a particular voter conducting that voting session, and
>
> "a printer providing a tangible receipt containing at least the voting record and the voting session identifier for each voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether taken individually or properly combined.

Further, Applicants' claim 24 is patentable at least because it recites:

> "means coupled to said processor for storing the voting record and the unique voting session identifier for each voting session in a tangible medium separate from said memory;
>
> "wherein the tangible medium for each voting session is issued by said means for storing after the voting record and unique voting session identifier for the voting session is stored therein and before a next voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether taken individually or properly combined.

Further, Applicants' claim 44 is patentable at least because it recites:

> "storing the voting record including the unique voting session identifier and the voting selections in a tangible medium separate from the memory; and
>
> "issuing the tangible medium after the voting record including the unique voting session identifier and the voting selections is stored therein and before a next voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether taken individually or properly combined.

Further, Applicants' claim 74 is patentable at least because it recites:

> "means for causing the computer to store the voting record including the voting session identifier and the voting selections in a tangible medium separate from the memory and to issue the tangible medium after the voting record including the unique voting session identifier and the voting selections is stored therein and before a next voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether taken individually or properly combined.

Further, Applicants' claim 79 is patentable at least because it recites:

> "wherein said voter interface is usable by a person having a handicap, said voter interface including one or more of a an aural device, a headphone, a keyboard, a pen with writing recognition interface, voice recognition apparatus, a Braille keyboard and/or a Braille output device,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether taken individually or properly combined.

Further, Applicants' claim 83 is patentable at least because it recites:

"a generator of a voting session identifier for each voting session, wherein at least part of the voting session identifier is random and is unique for each voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether taken individually or properly combined.

Further, Applicants' claim 87 is patentable at least because it recites:

"at least two separate and independent memory devices coupled to said processor for each storing the voting record and the unique randomized voting session identifier for each voting session, wherein one of said memory devices is decoupled from said processor after the voting record and the unique randomized voting session identifier for one voting session is stored therein and before a next voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether taken individually or properly combined.

Further, Applicants' claim 89 is patentable at least because it recites:

"a generator of a voting session identifier for each voting session, which voting session identifier is unrelated to the personal identity of a particular voter conducting that voting session, and

"a printer providing a printed paper containing at least the voting record and the voting session identifier for each voting session, wherein the printed paper is human readable and/or optically readable,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether taken individually or properly combined.

Further, Applicants' claim 90 is patentable at least because it recites:

"storing the voting record including the voting session identifier and the voting selections in a memory; and

"storing the voting record including the voting session identifier and the voting selections on a printed paper, wherein the printed paper is human readable and/or optically readable,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether taken individually or properly combined.

Finally, Applicants' claim 101 is patentable at least because it recites:

"means for storing the voting record including the voting session identifier and the voting selections in a memory; and

"means for storing the voting record including the voting session identifier and the voting selections in a portable tangible medium separate from the memory,"

which is not described or suggested by Challener et al and/or the FEC Standard, whether

taken individually or properly combined.

Applicant's claims 2-10, 13-19, 25-37, 39-41, 43, 45-49, 51-55, 57-59, 75, 77-78, 85-86, 88, 91-100 and 102 are patentable at least because they depend from one of patentable claims 1, 22, 24, 44, 74, 83, 87, 90 and 101.

In addition, claims 15-16 recite a means for generating a voting session identifier and particular embodiments thereof, claims 17, 24, 86 and 88 recite that the voting session identifier is unrelated to the voter's identity, claim 32 recites means for tabulating and publishing the voting record and claims 34-35 recite publishing or publishing via the Internet, claim 43 and 86 recite a voting session identifier including information unrelated to voter identity and/or information relating to the election, and claims 93 and 95 recite particular displaying of voting information, none of which is described by Challener et al and/or the FEC Standard.

Accordingly, the rejection under 35 U.S.C. §102(e) or 35 U.S.C. §103(a) is overcome and should be withdrawn.

Rejections Under 35 U.S.C. §103(a):

Claims 1-61 and 65-102 are rejected under 35 U.S.C. §103(a) as being unpatentable over Challener et al alone or as modified by the FEC Standard, in view of U.S. 6,412,692 to Miyagawa. The rejection is traversed, but is moot as to canceled claim 82.

Challener et al and the FEC Standard are discussed in detail above.

Miyagawa relates to a method and device for identifying a qualified voter and issuing a paper ballot, ID card that a voter presents to vote; Miyagawa does not directed to a voting apparatus or system with which a voter may actually vote. Voting occurs after the voter's identity and qualification has been confirmed and the system issues a voting paper which the voter then takes to a voting terminal. (Column 12, lines 16-24).

In Miyagawa, the voting record is stored in a memory apparatus 24 which contains a voter database to avoid double voting, and leads to issuance of a voting card or paper which is subsequently utilized in voting. (Column 8, lines 21-35; column 12, lines 16-25). To be consistent with the description, Miyagawa appears to use "voting record" to mean the fact of

voting and not the record of voting selections made because voting has not yet occurred.

What is written to the ID card of Miyagawa is a "voting history (a record of reception in the election), and not a record of the voting selections made by a voter. (Column 8, lines 53-60; column 10, lines 47-52).

Examiner's assertion that "Miyagawa teaches that the record of the vote may be stored on a smart card" upon which the rejection is based is inconsistent with what Miyagawa teaches and so is incorrect. As a result, the rejection must fail and should be withdrawn. Miyagawa simply does not describe or suggest the non-obvious features of Applicant's claims that are also missing from Challener and/or the FEC Standard.

In addition, there is no suggestion or motivation in Challener and/or Miyagawa that would lead one of ordinary skill in the art to combine these references, and so the combination is improper and the rejection should be withdrawn.

Examiner refers to Figure 2 of Miyagawa which is a voter identification apparatus or reception terminal 21 (column 3, lines 1-3 and column7, lines 25-33) and not a voting apparatus. Terminal 21 automatically performs voter reception jobs at a polling station leading to issuance issuing of a voting card for subsequent voting.

The combination of Challener, the FEC Standard and Miyagawa is improper for the reasons set forth above and further because neither reference suggests its combination with the other. Absent some statement or suggestion within the references themselves that they should be combined, there is no nexus which could substantiate the suggested combination.

> "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined *only* if there is some suggestion or incentive to do so."

ACS Hospital Systems, Inc. vs. Montefiore Hospital, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

The burden is on the Examiner to particularly identify the suggestion, teaching, or motivation in the reference(s) for their combination, and not just naming similarities between the reference(s) and the claimed invention. *Ruiz v. A.B. Chance Co.*, 234 F.3d 654 (Fed. Cir. 2000), 57 U.S.P.Q.2d 1161, 1166; *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999), 50 U.S.P.Q.2d 1614, 1618.

> "[A] rejection cannot be predicated on the mere identification ... of individual components of claimed limitations. Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed

> invention, would have selected these components for combination in the manner claimed."

Ecolochem Inc. v. Southern California Edison, 56 U.S.P.Q.2d 1065, 1076 (Fed. Cir. 2000) quoting *In re Rouffet*, 149 Fed.3d 1350, 1357 (Fed. Cir. 1998), 47 U.S.P.Q.2d 1453, 1456.

Moreover, even if the combination could properly be made, the result would not include all of the elements of the invention as claimed by Applicant.

On the other hand, Applicants' claim 1 is patentable at least because it recites:

> "means coupled to said processor for storing the voting record and the unique voting session identifier for each voting session in a tangible medium separate from said memory,
>
> "wherein the tangible medium for each voting session is issued by said means for storing after the voting record and unique voting session identifier for the voting session is stored therein and before a next voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 22 is patentable at least because it recites:

> "a generator of a voting session identifier for each voting session, which voting session identifier is unrelated to the personal identity of a particular voter conducting that voting session, and
>
> "a printer providing a tangible receipt containing at least the voting record and the voting session identifier for each voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 24 is patentable at least because it recites:

> "means coupled to said processor for storing the voting record and the unique voting session identifier for each voting session in a tangible medium separate from said memory;
>
> "wherein the tangible medium for each voting session is issued by said means for storing after the voting record and unique voting session identifier for the voting session is stored therein and before a next voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 44 is patentable at least because it recites:

> "storing the voting record including the unique voting session identifier and the voting selections in a tangible medium separate from the memory; and
>
> "issuing the tangible medium after the voting record including the unique

voting session identifier and the voting selections is stored therein and before a next voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 60 is patentable at least because it recites:

"for each of the number of voters, a chip card providing a registration record and a storage medium for recording the voter's voting selections, wherein said chip card has substantial memory for recording all of the voting selections of one voter;

"a chip-card reader/writer for coupling the registration information to the voting machine and for recording each voter's voting selections in the storage medium of that voter's chip card after that voter's voting session is completed,"

which is not described or suggested Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 74 is patentable at least because it recites:

"means for causing the computer to store the voting record including the voting session identifier and the voting selections in a tangible medium separate from the memory and to issue the tangible medium after the voting record including the unique voting session identifier and the voting selections is stored therein and before a next voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 79 is patentable at least because it recites:

"wherein said voter interface is usable by a person having a handicap, said voter interface including one or more of a an aural device, a headphone, a keyboard, a pen with writing recognition interface, voice recognition apparatus, a Braille keyboard and/or a Braille output device,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 80 is patentable at least because it recites:

"for each of the number of voters, a smart card including a storage medium for recording the voter's voting selections, wherein said smart card storage medium is sufficient for recording all of the voting selections of one voting session;

"a smart-card writer recording each voter's voting selections in the storage medium of that voter's smart card after that voter's voting session is completed; and

"a collection container for receiving said smart card,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or

Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 83 is patentable at least because it recites:

> "a generator of a voting session identifier for each voting session, wherein at least part of the voting session identifier is random and is unique for each voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 87 is patentable at least because it recites:

> "at least two separate and independent memory devices coupled to said processor for each storing the voting record and the unique randomized voting session identifier for each voting session, wherein one of said memory devices is decoupled from said processor after the voting record and the unique randomized voting session identifier for one voting session is stored therein and before a next voting session,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 89 is patentable at least because it recites:

> "a generator of a voting session identifier for each voting session, which voting session identifier is unrelated to the personal identity of a particular voter conducting that voting session, and
>
> "a printer providing a printed paper containing at least the voting record and the voting session identifier for each voting session, wherein the printed paper is human readable and/or optically readable,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Further, Applicants' claim 90 is patentable at least because it recites:

> "storing the voting record including the voting session identifier and the voting selections in a memory; and
>
> "storing the voting record including the voting session identifier and the voting selections on a printed paper, wherein the printed paper is human readable and/or optically readable,"

which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Finally, Applicants' claim 101 is patentable at least because it recites:

> "means for storing the voting record including the voting session identifier and the voting selections in a memory; and
>
> "means for storing the voting record including the voting session identifier and

the voting selections in a portable tangible medium separate from the memory," which is not described or suggested by Challener et al and/or the FEC Standard and/or Miyagawa, whether taken individually or properly combined.

Applicant's claims 2-21, 23, 25-43, 45-59, 61, 65-73, 75-78, 81, 84-86, 88, 91-100 and 102 are patentable at least because they depend from one of patentable claims 1, 22, 24, 44, 60, 74, 80, 83, 87, and 101.

In addition, claims 12 and 38 recite a collection container operationally coupled to an encoder, claims 15-16 recite a means for generating a voting session identifier and particular embodiments thereof, claims 17, 24, 70, 86 and 88 recite that the voting session identifier or voter serial number is unrelated to the voter's identity, claims 32 and 67 recite tabulating and/or publishing the voting record read from a smart card or chip card, claims 34-35 and 69 recite publishing or publishing via the Internet, claim 43 and 86 recite a voting session identifier including information unrelated to voter identity and/or information relating to the election, and claims 93 and 95 recite particular displaying of voting information, none of which are described or suggested by Challener and/or the FEC Standard and/or Miyagawa, whether taken individually or in proper combination.

Claims 62-64 are rejected under 35 U.S.C. §103(a) as being unpatentable over Challener et al alone or as modified by the FEC Standard, in view of Miyagawa, in view of the 1998 Advanced Card Technology Sourcebook (hereinafter "the Sourcebook"). The rejection is respectfully traversed.

Challener et al, the FEC Standard and Miyagawa are discussed above.

The Sourcebook relates to the amount of memory available in a smart card.

The rejection should be withdrawn because the references cannot be properly combined, for the reasons set forth above.

In addition, Applicant's claims 62-64 are patentable at least because they depend from patentable claim 60.

Accordingly, the rejections under 35 U.S.C. §103(a) are overcome and should be

withdrawn.

Formal Drawing:

Applicants submitted formal drawings in a separate paper addressed to the Official Draftsperson filed with certificate of mailing dated April 10, 2002, which is not reflected in the latest papers received from the Patent and Trademark Office.

Approval of the formal drawing and confirmation thereof in the next paper is solicited.

Priority Claim:

Acknowledgment of Applicant's claim for domestic priority under 35 U.S.C. §119(e) to the provisional applications listed in the first paragraph of the spectification as amended by Preliminary Amendment filed with certificate of mailing dated April 10, 2001, is again requested. Note that the references to provisional applications 60/198,704 filed April 20, 2000, and 60/245,596 filed November 3, 2000, have been deleted and that the priority thereof is not claimed in the present Application.

Conclusion:

Applicant respectfully requests that the rejections be withdrawn, and that the Application including claims 1-81 and 83-102 be allowed and passed to issuance.

Enclosed is a check in the amount of $55.00 in payment of the fee for filing this paper within the first extensible month. The number of claims remaining being or less than the number previously paid for, no claims fee is due in consequence of this response.

Should any other or additional fee be due in consequence of this response, please charge such fee and deposit any refund to Deposit Account 04-1406 of Dann, Dorfman, Herrell & Skillman.

The Examiner is requested to telephone the undersigned attorney if there is any question or if prosecution of this Application could be furthered by telephone.

Respectfully submitted,
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Attorneys for Applicant(s)

By: 
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October 28, 2003

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